

Amendment to Specification

Please replace the existing abstract with the following:

A high-speed transmitter for digital data having a variable data rate, the transmitter comprising a convolutional encoder, adapted to generate, for each group of k input bits in a bitstream, n coded output bits, such that k and n are integers, n equal to or greater than k, and at least one of k and n is variable responsive to the variable data rate of the transmitter; and a modulator, coupled to map the output bits generated by the encoder to a constellation of M symbols for transmission by the transmitter, M an integer, which is variable responsive to the variable data rate of the transmitter; and wherein for a given rate ~~Rs~~<sup>Ks</sup> of transmission of the symbols by the transmitter, the variable data rate Rb is given by  $R_b = R_s * \log_2(M) * R_c$ , wherein R<sub>c</sub> is a code rate equal to k/n.